MONROE COUNTY PROPOSED RECLAMATION PLAN

SITE NAME: Purpus Quarry

GENERAL INFORMATION:

Operator Name/Address:	**The Kraemer Company, LLC** **820 Wachter Avenue** **P.O. Box 235** **Plain, Wisconsin 53577** **(608) 546-2255**
Property Owner:	**TKC Real Estate Holdings, LLC** **820 Wachter Avenue** **P.O. Box 235** **Plain, WI 53577** **(608)-546-2255**
Parcel Number/Site ID#:	**044005190000, 044005160000, 044005230000**, **044005210000**
Property Description:	**Refer to Maps 1, 2 and 3** **The PART OF THE NW1/4 OF NW1/4, PART OF THE NE1/4 OF NW1/4, PART OF THE SE1/4 OF NW1/4, PART OF THE SE1/4 OF NW1/4 all in Section 27, T15N, R1W, Wellington Township, Monroe County, Wisconsin.** **Quarry Entrance is located on Oregon Avenue.**
Total Site Acreage:	**23 acres**

SITE INFORMATION:

Current Property Description:

Elevation and protection of groundwater:

Refer to Map 4 - based on Miscellaneous Paper 81-1 from the Wisconsin Geological and Natural History Survey (Lippelts & Hennings) it is estimated that the elevation of groundwater at the property is between 1060'-1100' (datum is mean sea level). The aquifer in the area is Cambrian Sandstones and sand and gravel. The quarry floor will be mined to a depth of approximately 1220'.

The Kraemer Company holds a WPDES Permit No. WI-00465115-5. The quarry will be developed to be internally drained toward the proposed retention pond through slopes and grading in the central and southern portion of the disturbed area and therefore the impact to the groundwater and neighboring property is negligible. Best management practices may consist of vegetated berm, silt fence, bale check and/or additional retention pond installation and will be utilized should any offsite drainage occur.

The Kraemer Company has implemented a spill prevention plan that includes steps to follow if a spill should occur. All fuel, oil, lubricant, and other chemicals are stored in containers in a portable trailer or building. All portable trailers are equipped with spill prevention materials including sorbent pads and booms. All foremen and specific site employees are trained in spill prevention and product use.

Geologic information:

Refer to Map 5 – the cross section of the area in descending order includes silt loam underlain by red clay, underlain by limestone, underlain by sandstone.

Existing surface waters:

Refer to Map 6 – A dry run exists within the property boundaries. A proposed retention pond located in the disturbed area will be used for storm water control.

Drainage pattern at the site:

Refer to Map 7 – the disturbed area of the quarry will be developed through proper grading and placement of vegetated berms to be internally drained. After a heavy rain or snow melt event, water will travel toward the proposed retention pond. Water remains within the property boundaries (internally drained) until it infiltrates or evaporates. The undisturbed portion of the property drains toward the surrounding valleys towards the south and north.

Existing structures:

Refer to Map 6 – proposed structures will include a scale, scale house, portable toilet, gravel haul roads, a locking gate, and the retention pond.

Description of Mineral Deposit:

Minerals to be extracted:

It is estimated that up to 45-85' of limestone will be extracted (Prairie du Chien Group, Ordovician Period). Overburden ranges from 10' to 35' thick.

Estimated volume to be removed:

The mine will be operated until it is no longer economically feasible to do so or when the limestone is depleted. Market demands will dictate how much material will be removed on an annual basis.

Topsoil Distribution:

Distribution, thickness, and type of topsoil:

Refer to Map 8 (Soils Map) and Figures 1 & 2 (Soils Distribution and Soils map legend).

Soils present include the Norden, Urne, and Dorerton soils(NuF, 20-45% slopes), Norden Silt Loam (NID2, 12-20% slopes), Pits (Pd), Wildale silt loam (WdB, 2-6% slopes, WdC2, 6-12%, WdD2, 12-20% slopes).

Biological Resources:

Surrounding land use consists of:

Agriculture (pasture, row crops, etc.) and forested.

Types of plant life: (determined by site inspection, The Vegetation of Wisconsin, an Ordination of Plant Communities by John T. Curtis, 1959, and the Wisconsin DNR website for endangered species).

The native vegetation of the area is mainly sugar maple, basswood, beech, elm, and red oak. Plant species may include, but are not limited to, various groundlayer species of herbs (troutlilies, springbeauty, toothwort, bloodroot, wild ginger and trilliums), shrubs and woody vines (woodbine, poison ivy, bittersweat, and gooseberries) and evergreen plants.

Wildlife species: (determined by site inspection, The Vegetation of Wisconsin, an Ordination of Plant Communities by John T. Curtis, 1959, and the Wisconsin DNR website for endangered species).

Wildlife usage may include white tail deer, fox, raccoon, rabbit, squirrel, skunk, chipmunk, bats, turkey, and various bird species (cerulean warbler, hairy woodpecker, red-bellied woodpecker and pileated woodpecker).

PROPOSED POST MINING LAND USE: *(Describe the proposed post mining land use)*

Proposed post mining land use:

The portion of the property that has been disturbed by non-metallic mining activity will be returned to a natural grassland area and portions of the highwalls will remain for geologic observation and bird habitat.

RECLAMATION MEASURES:

Description of Phases and Estimated Time Frames:

Refer to Map 9 – reclamation will be progressive toward the west and north. As mining progresses to the north, the disturbed areas created in the western portion of the property will be reclaimed in Phase 1. The quarry floor in this area may or may not be used for future topsoil, overburden, and product stockpiling. If stockpiling is not anticipated to occur, the floor area will be reclaimed (this statement applies to all phases of reclamation). As mining is completed to the north and progresses to the west, the northern high wall areas and portions of the quarry floor created will be stabilized and reclaimed in Phase 2. As mining progresses further west, the western high wall areas and portions of the quarry floor will be stabilized and reclaimed in Phase 3. After mining is complete to the southwest, the high wall area and floor area will be reclaimed in Phase 4, as will any remaining disturbed areas on the property. Ultimately, market demands are the driving force behind the reclamation timetable. Reclamation will begin as soon as it becomes practical and at the time that space and equipment are available.

Handling of Topsoil:

Refer to Map 9 – A vegetated overburden berm will be installed within the east-central portion and along perimeter of the disturbed area. As mining continues to the north and west, the overlying topsoil and overburden will be stripped off the minable limestone and will be stockpiled to the north and east of the advancing high wall. Overburden will be added to the existing stockpile in the east central portion of the existing quarry, or will used to begin reclamation in those areas previously disturbed, starting in the northeast. Erosion control measures, such as grading and seeding the topsoil and overburden stockpiles and/or installing silt fences and/or hay bales will be implemented to prevent and control erosion. The seed mixtures used on the topsoil and overburden stockpiles typically consist of 30% timothy, 20% perennial rye, 20% orchard grass, 20% alfalfa and 10% bromegrass, but may vary depending on availability of seed or a seed mixture that the Monroe County Soils Conservation Department may suggest.

Proposed Slopes and Grades:

Refer to Map 10 - overburden materials placed in temporary stockpiles onsite will eventually be graded into approximately ten foot high berms or hills along the base of the stabilized highwalls to blend with the natural topography. All graded, overburden slopes shall be no steeper than 3:1 (horizontal:vertical). The graded slopes will be seeded with a seed mixture similar to that described above in "Handling of Topsoil".

It is anticipated that the quarry floor will be covered with the remaining stockpiled overburden material. The depth of the overburden cover will depend on the availability of the material onsite. Topsoil will be spread evenly across the overburden, depending on availability. The quarry floor will be graded to facilitate proper drainage and will also be seeded and mulched. It is expected that a sufficient supply of both overburden and topsoil will be available from onsite stockpiles to successfully complete reclamation.

The highwall faces will be stabilized and all loose material will be removed. A security fence, typically a barded-wire fence, will be placed along the highwall areas.

Description of Grading Methods:

Equipment:

Backhoes, haul trucks, loaders and scrapers.

Grading Methods:

Backhoes, haul trucks, front-end loaders and scrapers will be used to load and haul the overburden and topsoil to the reclamation area. Dozers will be used to achieve the final grade, slope, and drainage.

Proposed Final Features:

Refer to Map 10 - the proposed final features will include a retention pond, gravel haul roads and gate for the owners' use to access the property. The woodlands and crops that surround the active quarry area will remain undisturbed throughout the mining and reclamation process.

Estimated cost of reclamation of the proposed site: It is anticipated that nonmetallic mining will disturb approximately 16.0 of the total 23 acres of the property. The cost to reclaim the entire 16.0 acres is estimated to be $45,386.72. According to this figure, the cost to reclaim is $2,836.67 per active acre ($45,386.72/16.0 acres). The reclamation bond amount should reflect the number of acres that are disturbed per year and should be modified annually to reflect changes.

The chart below shows the cost to reclaim all proposed 16.0 disturbed acres. Mining will progress to the north and west in 6 phases and reclamation will follow in 4 phases. The remaining site acreage will either be reclaimed or will not be disturbed by mining.

Reclamation Activity	Days or Acres	Hours per day	Total Cost (equipment, materials and labor)	
Final grading of slopes and floor, topsoil distribution, slope stabilization	8.5 days	10	$42,500.00	$5000.00 per day
Revegetation including seeding, mulching and other stabilizing techniques	16 acres	10	$2,730.720	$170.67 per acre
Site maintenance (erosion control and revegetation observation/maintenance)	3-4 days	Varies	Minimal	

RE-VEGETATION MEASURES: *(Describe activities for re-vegetation of the property including grading, seed mixes, seeding rates, soil amendments, when seeding will occur, erosion control methods, etc.)*

Seed Mixes, Seeding Rates and Schedule: *(Include discussion on proposed time-frame for seeding to achieve best results. Seed mixes and rates may be submitted as an attachment)*

The graded berms, hills and quarry floor will be seeded with a mixture typically consisting of 30% timothy, 20% perennial rye, 20% orchard grass, 20% alfalfa and 10% brome grass. The seed mixture will be applied once all grading of the disturbed area is complete. Seed application typically occurs two to fourteen days after completion of grading to prevent erosion and is based on current weather conditions, season and availability of personnel. Seeding is not typically done in the winter months.

Seed Bed Preparation Methods:

The seed mixture will be scattered uniformly over the graded areas with hand seeders and will be lightly raked to cover the seed with approximately ¼" of overburden material or topsoil. The seeded areas will be covered with mulch, typically consisting of hay or straw, immediately after seeding. The mulch will be uniformly spread over the seeded area to a loose depth of roughly ¼" or greater.

Erosion Control Methods:

Erosion control measures, such as berm construction, seeding, mulching, and water diversion, silt fence, and/or bale check installation, etc. will be implemented, as needed, to temporarily and permanently control drainage and erosion during the reclamation process. The quarry floor will be shaped to facilitate erosion control and proper drainage toward the retention ponds to control and/or minimize any offsite runoff. All erosion control measures will be inspected periodically to ensure proper operation and will be repaired or replaced as necessary. Temporary erosion control measures will be removed once the site shows evidence of stabilization.

CRITERIA FOR ASSESSING RECLAMATION: *(Describe what criteria will be used to determine that the reclamation is successful – including re-vegetation efforts. Examples include comparison to a reference plot, baseline data from photographs and plant counts, etc.)*

Revegetation at this site will consist of the planting of grasses on the quarry floor and slopes. Vegetative growth is expected to occur within 9 months of the seeding date. Kraemer personnel will inspect the seed growth on a regular basis. Successful reclamation will be determined by the Regulatory Authority (RA) (in this case the Monroe County Land Conservation Department) and Kraemer personnel. Vegetation may be considered established after a minimum of one full growing season. When successful reclamation has been determined, a written request to release financial assurance will be submitted to the RA by the operator. The RA shall respond within 60 days of receiving the request.

Berms will be graded to no steeper than 3:1 slopes (horizontal:vertical) and vegetated. If erosion occurs, those areas will be repaired and graded to blend in with the surrounding topography and will be re-seeded until the berm is stable. Reclamation on these slopes will be deemed successful when no evidence of major erosion is observed.

MAPS:

Maps must be provided which indicate the following information. In many cases, items can be combined onto one map to reduce the number of maps being provided.

- Γ **Maps 1, 2, and 3** General Location Maps, Property Boundaries
- Γ **Map 2** Location of Surface Waters and Manmade Features
- Γ **Map 4** Depth to Groundwater Information
- Γ **Map 5** Geologic Composition and Depth of Deposit
- Γ **Map 6** Existing Site Characteristics, Aerial Extent, Existing Topography
- Γ **Map 7** Existing Drainage Patterns
- Γ **Map 8** Distribution, Thickness and Type of Topsoil
- Γ **Figures 1&2** Monroe County Soil Descriptions
- Γ **Map 9** Designated Phases for Mining/Reclamation
- Γ **Map 9** Topsoil and Overburden Stockpile Locations
- Γ **Map 10** Final Site Topography (contours, drainage pattern, erosion control measures, etc.)
- Γ **Map 10** Final Site Characteristics and Schematic Cross-Section

CERTIFICATION:

Operator:

As an authorized representative of The Kraemer Company, LLC, I certify that the proposed reclamation of the site referenced in this document will be carried out in accordance with the proposed reclamation plan and any subsequent, approved changes.

Applicant's Signature (Joseph P. Kraemer, Vice President) Date

Owner and/or Lessee:

I certify that I concur with the reclamation plan submitted and will allow its implementation.

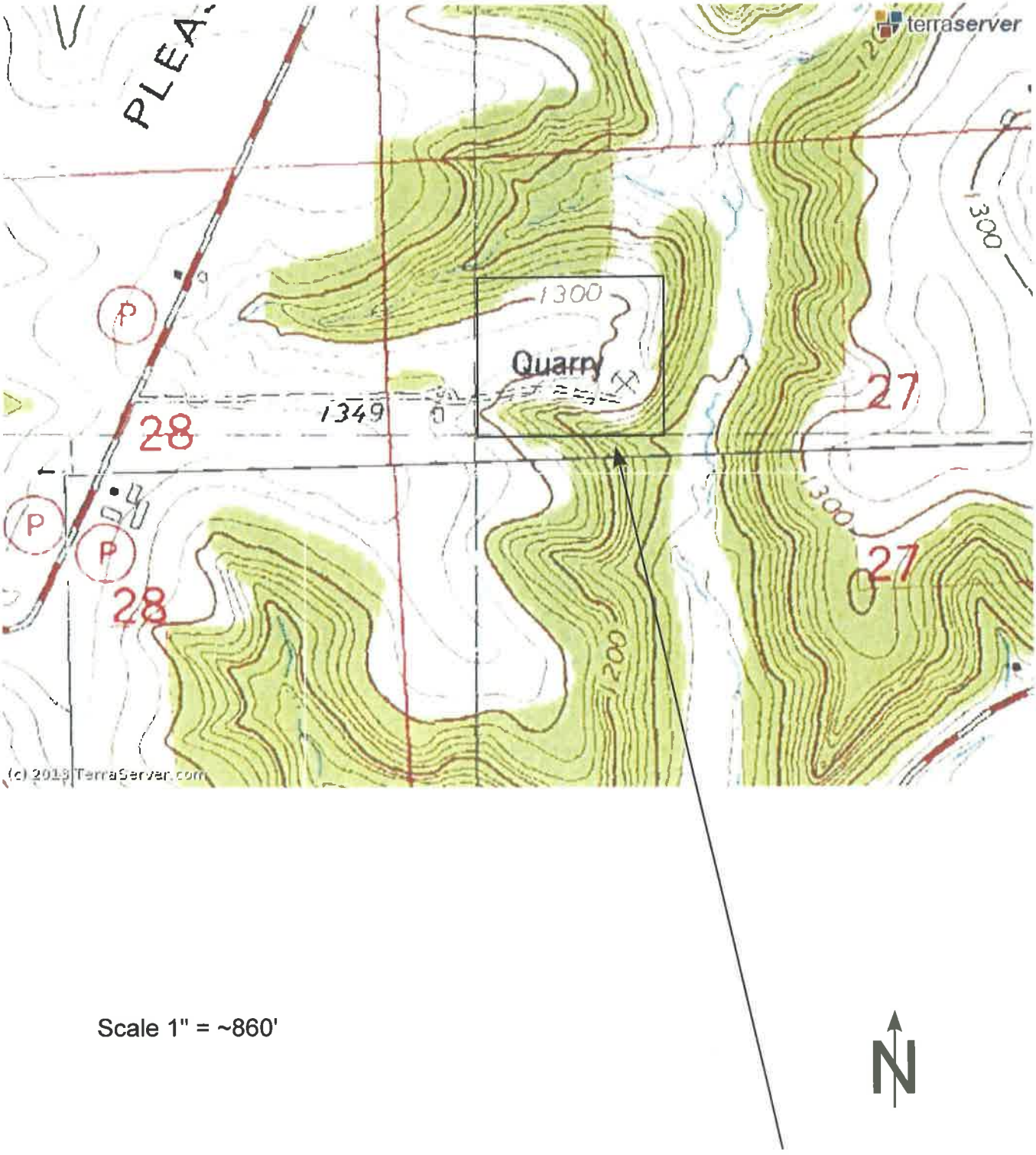
Landowner's Signature Date

Landowner's Signature Date

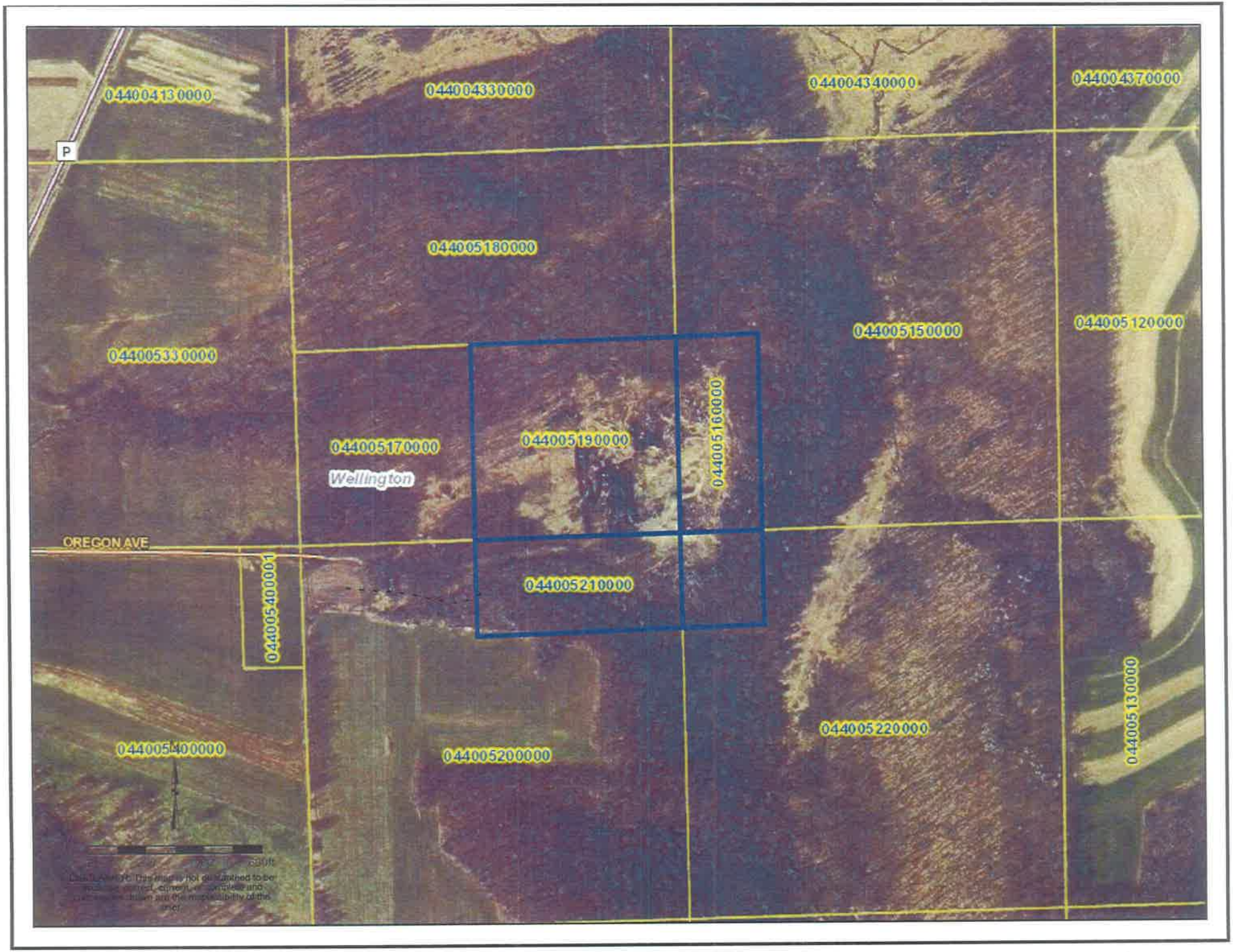
(If the mine operator has submitted a reclamation plan for an existing mine in accordance with an automatic permit or if the operator has submitted a reclamation plan for a new or reopened mine which is located on land for which a lease agreement or memorandum of lease between the landowner and applicant was recorded prior to August 1, 2001, a certification is not required from the owner or lessee. However, the operator must provide written evidence that the landowner and lessee, if different from the operator, has been provided with a written copy of the reclamation plan)

See Page 46

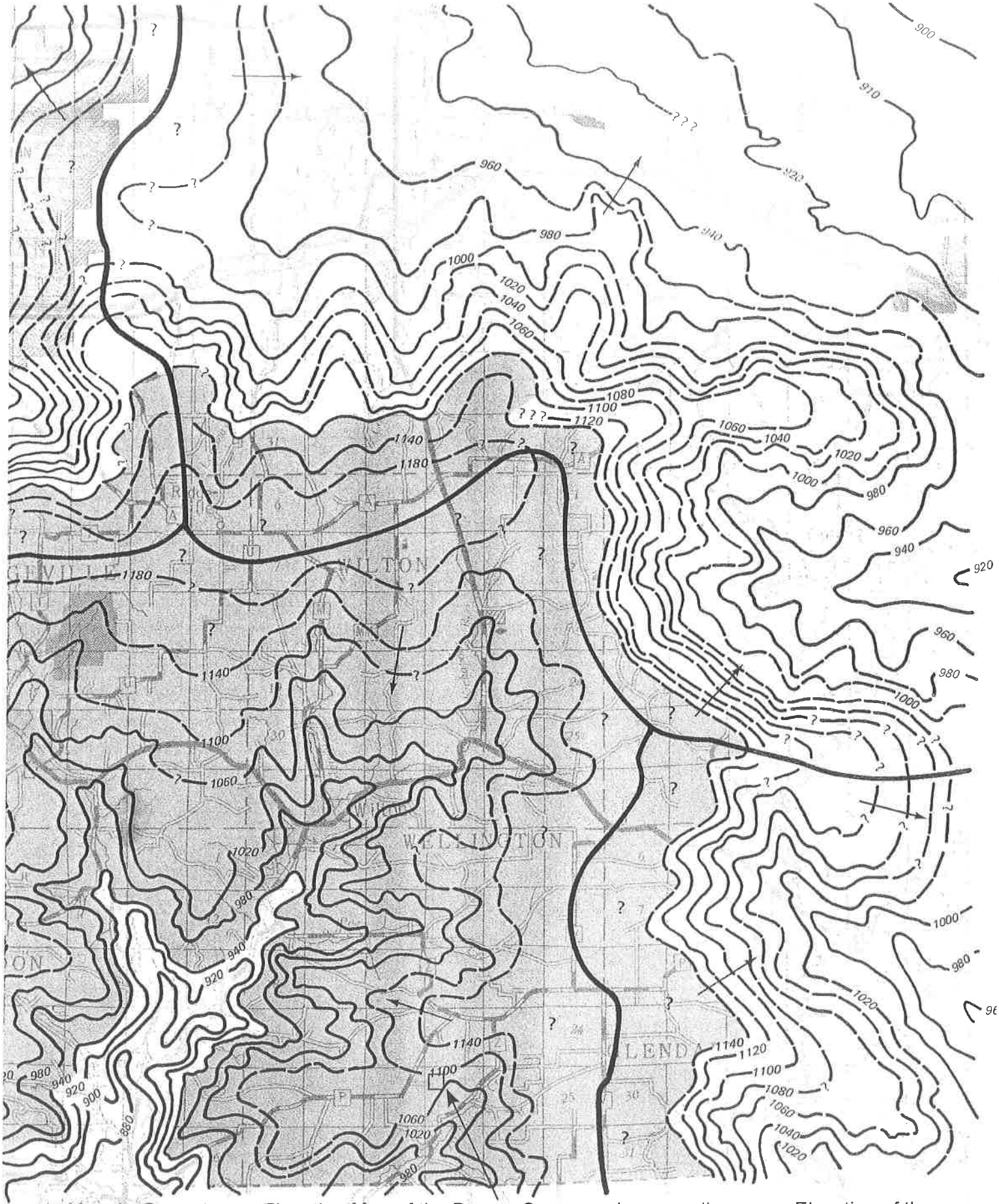
Map 1. Plat map showing the location of the Purpus Quarry.



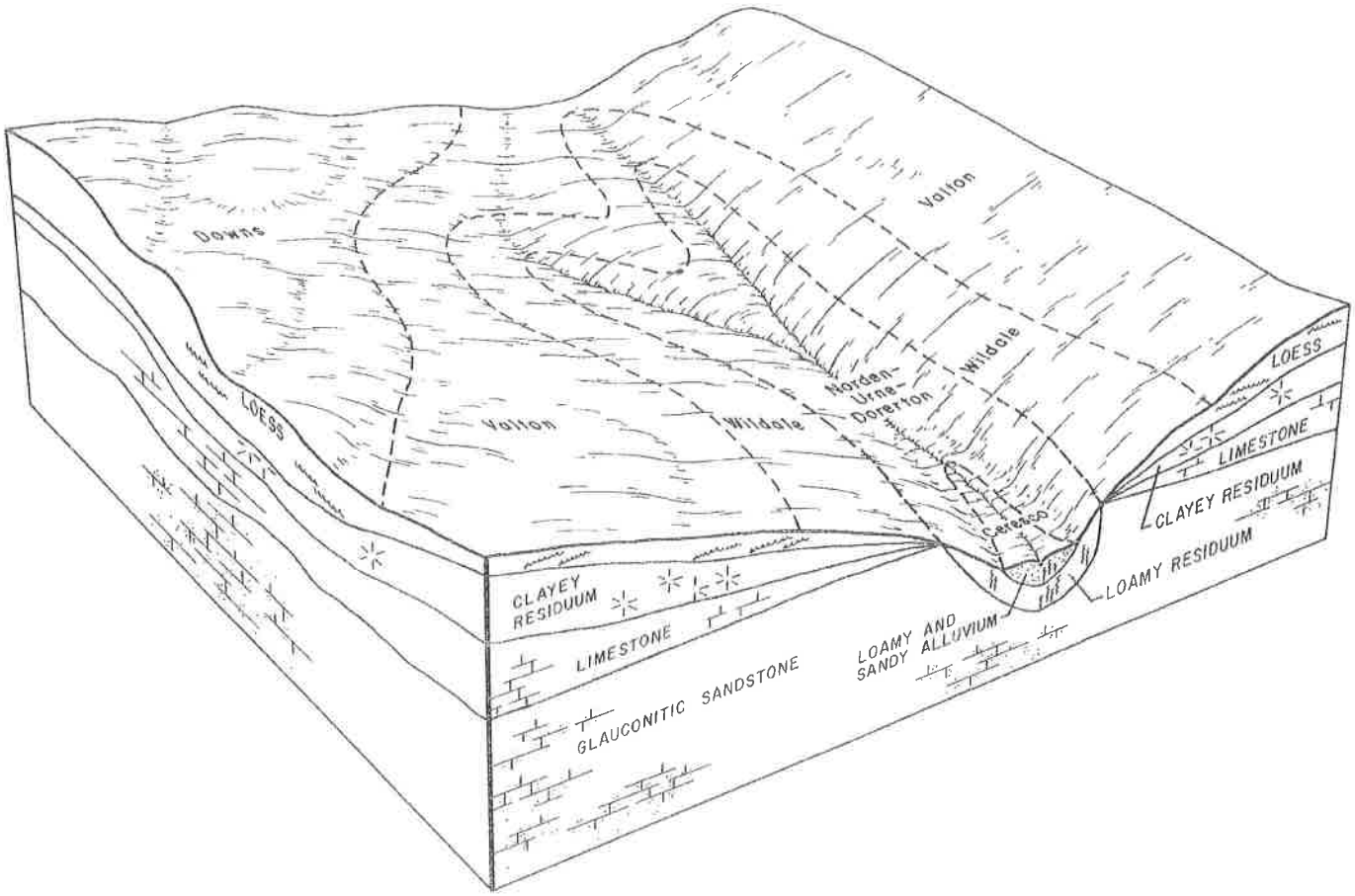
Map 2. Topographic Map showing the location and structures for the Purpus Quarry, Section 27, T15N, R1W, Wellington Township, Monroe County, WI.



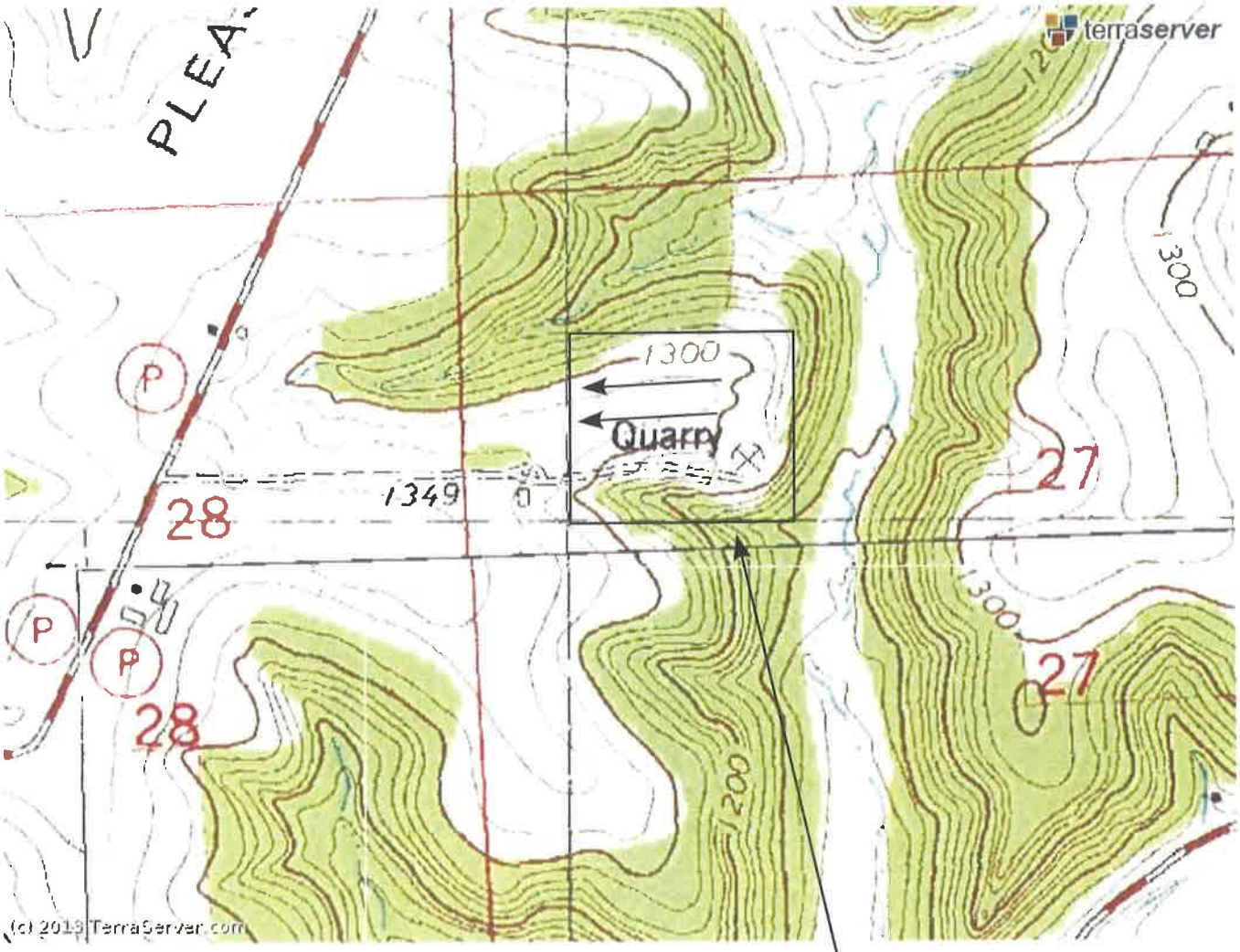
Map 3. Air photo showing the location of the Purpus Quarry in Section 27, T15N, R1W, Wellington Township, Monroe County, WI.



Map 4. Groundwater Elevation Map of the Purpus Quarry and surrounding area. Elevation of the groundwate is approximately 1060'-1100' above mean sea level. (Information from the Wisconsin Geological and Natural History Survey Misc. Paper 81-1 Lippelts & Hennings



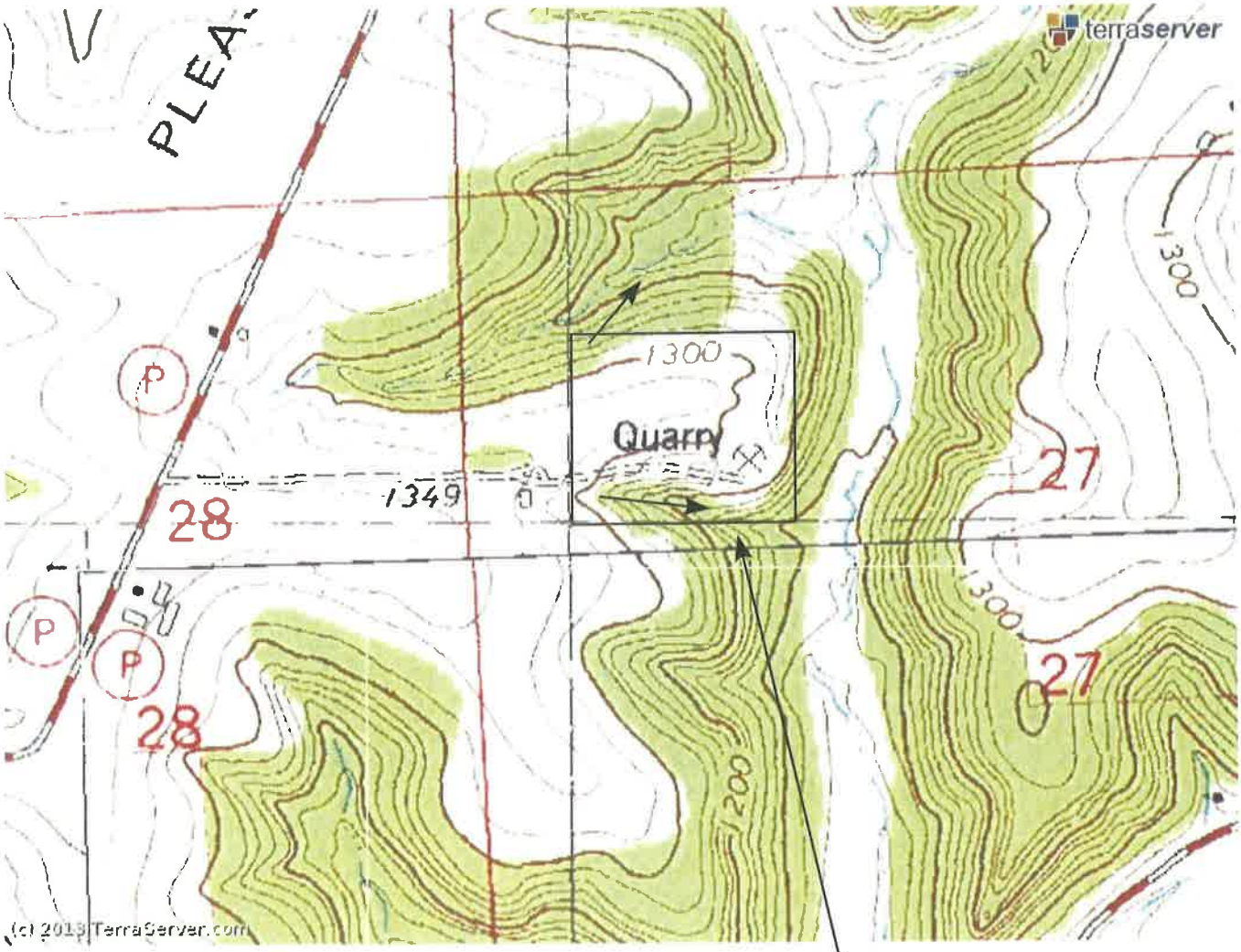
Map 5. Geology and Soils map showing the predominant soils (Map 8 shows site specific soils locations and distribution) with underlying cross-section of parent material. (Information from the Soils Survey of Monroe County, Wisconsin.)



Scale 1" = ~860'

N

Map 6. Topographic Map showing the existing topography and the site conditions, current mine footprint, and possible future areas to be mined for the Purpus Quarry, Section 27, T15N, R1W, Wellington Township, Monroe County, WI.

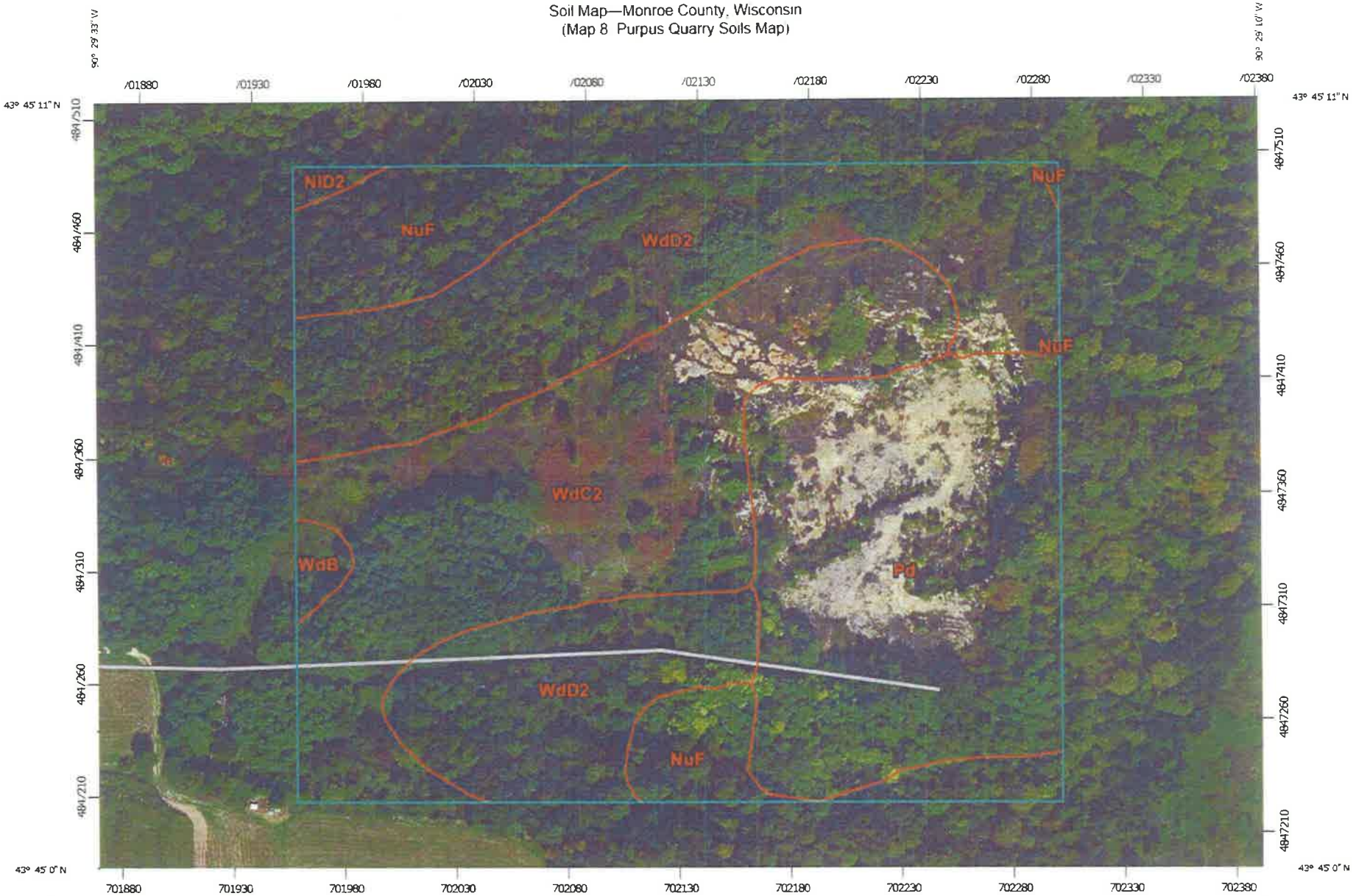


Scale 1" = ~860'

N

Map 7. Topographic Map showing the general drainage pattern of the Purpus Quarry, The quarry will be developed to be internally draining. Section 27, T15N, R1W, Wellington Township, Monroe County, WI.

Soil Map—Monroe County, Wisconsin
(Map 8 Purpus Quarry Soils Map)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Monroe County, Wisconsin
Survey Area Data: Version 7, May 13, 2009

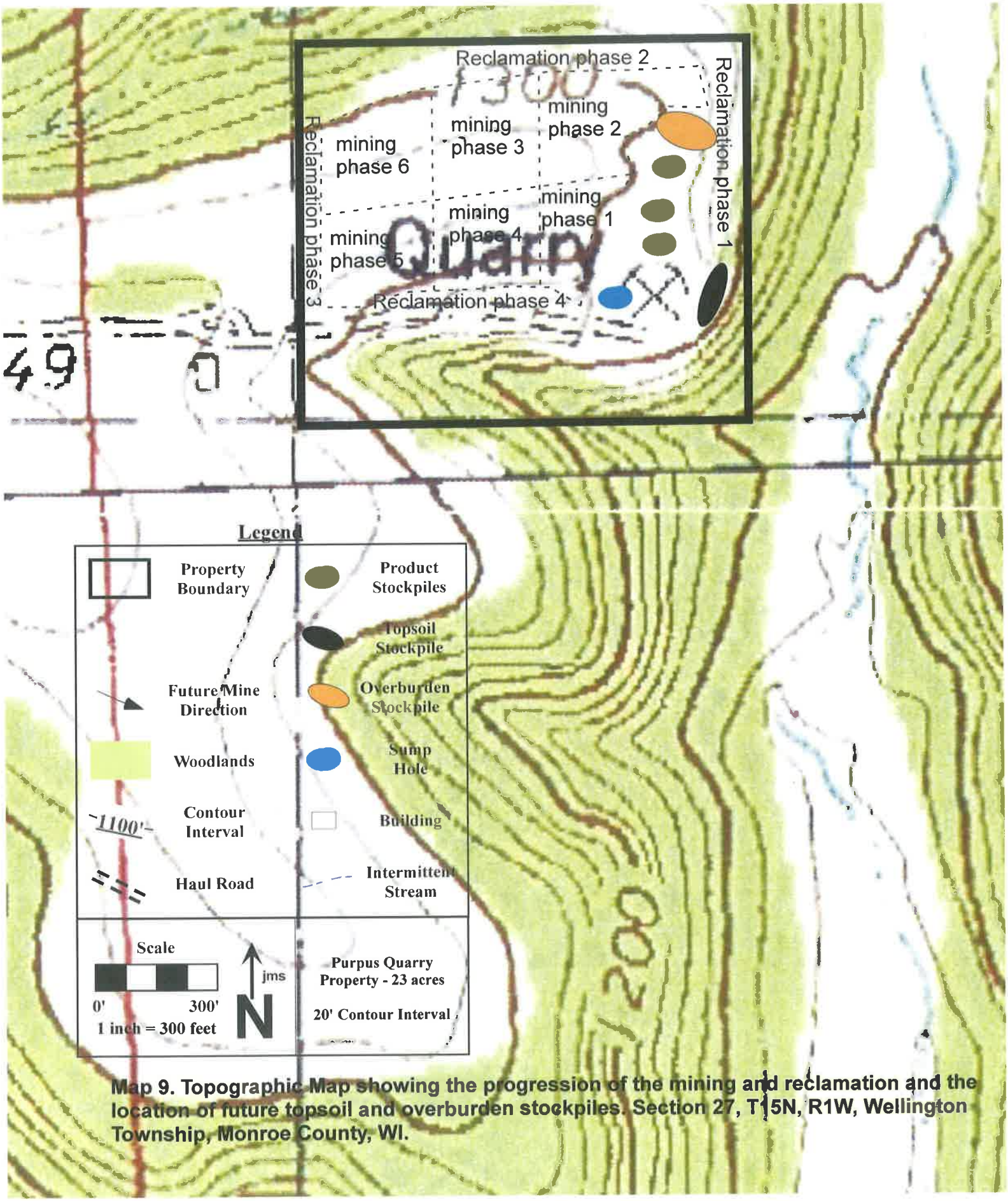
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 25, 2011—Oct 2, 2011

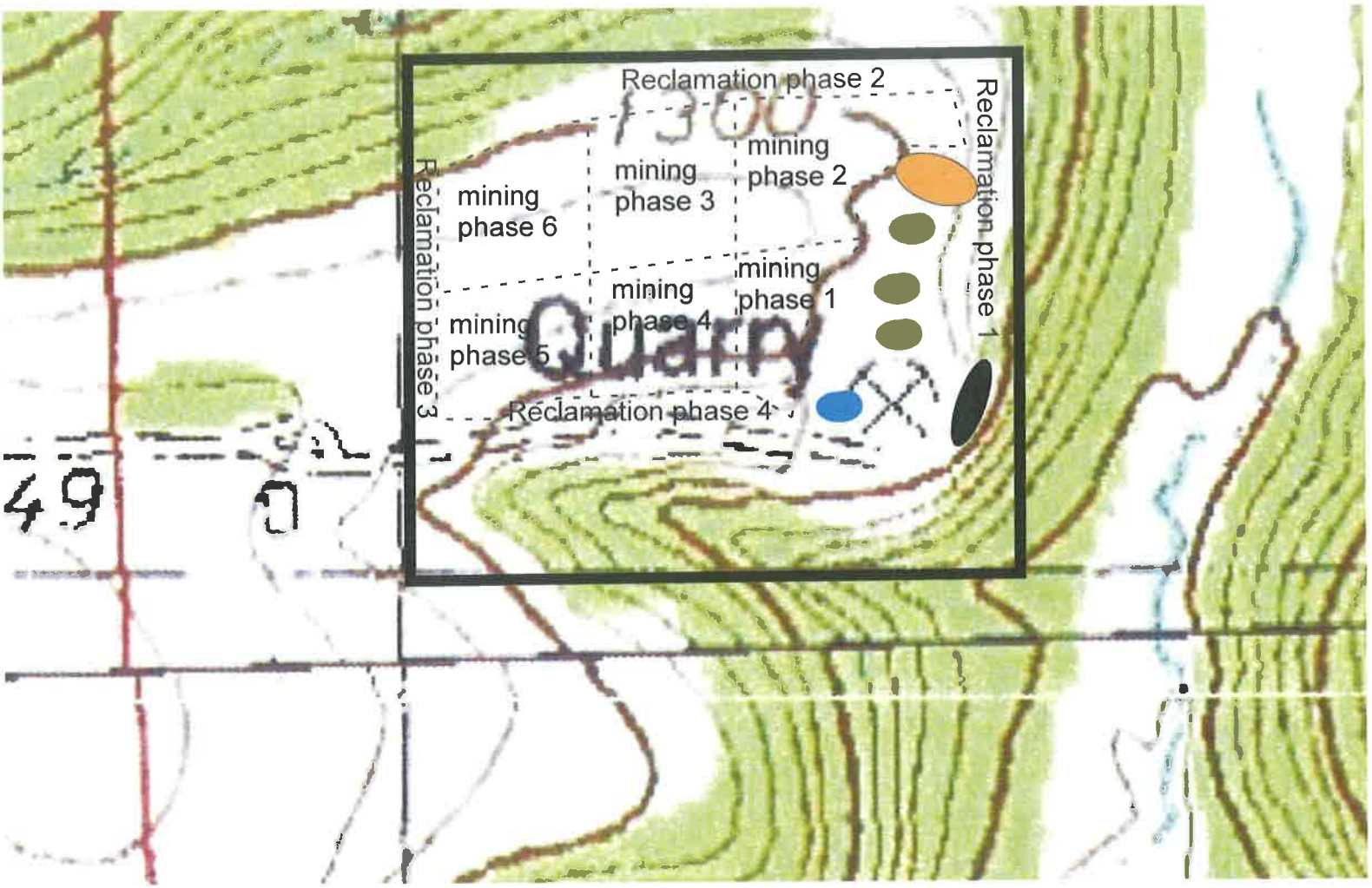
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Monroe County, Wisconsin (WI081)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
NID2	Norden silt loam, 12 to 20 percent slopes, eroded	0.1	0.5%
NuF	Norden, Urne, and Dorerton soils, 20 to 45 percent slopes	2.6	10.8%
Pd	Pits	6.2	25.7%
WdB	Wildale silt loam, 2 to 6 percent slopes	0.2	0.8%
WdC2	Wildale cherty silt loam, 6 to 12 percent slopes, eroded	7.0	29.2%
WdD2	Wildale cherty silt loam, 12 to 20 percent slopes, eroded	7.9	33.0%
Totals for Area of Interest		**24.0**	**100.0%**



Map 9. Topographic Map showing the progression of the mining and reclamation and the location of future topsoil and overburden stockpiles. Section 27, T15N, R1W, Wellington Township, Monroe County, WI.



Legend

Property Boundary	Product Stockpiles
	Topsoil Stockpile
Future Mine Direction	Overburden Stockpile
Woodlands	Sump Hole
~1100'~ Contour Interval	Building
Haul Road	Intermittent Stream

Scale

0' 300'

1 inch = 300 feet

jms

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Purpus Quarry Property - 23 acres

20' Contour Interval

Map 10. Topographic Map showing the final topography, slopes, drainage pattern and features. Final contours are subject to change and are dependent on the location of the actual, not proposed, mined dolomite.

Quarry floor to be mined to an approximate elevation of 1220' and a rock high wall will extend up to a maximum of ~1320'. Overburden and topsoil will be returned to the base of the high wall, quarry floor, and to the bench created at the top of the high wall. The material and quarry floor will be graded and sloped to blend in with the surrounding topography and to facilitate proper site drainage. The slopes and quarry floor will then be seeded and mulched. See schematic cross-section below.